

Subject: INFORMATION: Guidance Concerning
Continued Operational Safety and Airworthiness
Directives (AD)

Date: MAY 8 1989.

From: Manager, Transport Airplane Directorate,
Aircraft Certification Service, ANM-100

Reply to
Attn. of

To: Managers, ANM-110, ANM-100S, ANM-100L,
ANE-100, ASW-100, ACE-100, AEU-100

We have historically issued AD's containing requirements for repetitive inspections for cracking or corrosion in various areas of affected airplanes, and repair or modification on condition if cracking/corrosion is found; other AD's have required special crew procedures to provide an acceptable level of safety. Many of these AD's currently provide an optional terminating action for the required repetitive inspections or procedures, such as part replacement, improved material, redundant structure or systems, or other design improvement. Where terminating actions are only optional, operators are thereby allowed to inspect or use special operating procedures essentially "forever."

As a result of extensive industry and FAA efforts following the Aloha Airlines 737 accident in Hawaii in April 1988, it has become apparent that repetitive long term inspections or special procedures may not be providing the degree of safety assurance necessary for the aging transport airplane fleet. This, coupled with a better understanding of the human factors associated with numerous repetitive inspections or procedures, has led us to consider placing less emphasis on repetitive inspections and special procedures, and more emphasis on design improvements.

Thus, we find it necessary to shift our direction in AD actions addressing unsafe conditions. In lieu of our previous position, we now acknowledge that long term continued operational safety will be better assured by design changes to remove the source of the problem, rather than by repetitive inspections or special operating procedures. It is essential that, beginning immediately, we initiate this policy in our AD rulemaking process.

The Air Transport Association (ATA) and the Aging Aircraft Task Groups, with assistance from manufacturers, have already agreed to review currently existing AD's applicable to all transport category airplanes, and make recommendations to the FAA for changes to the AD's, for the following kinds of considerations:

- a. flight crew procedures vs. permanent repair, replacement, or modification;
- b. repetitive maintenance inspections vs. permanent repair, replacement, or modification;
- c. optional vs. mandatory terminating action;
- d. individual operator's vs. general procedural changes (e.g., action would be approved for an individual operator's airplane, but not carried along if airplane is sold to another operator).

FAA offices responsible for preparing AD's for issuance by this Directorate should keep these same considerations in mind when developing any new AD action.

I recognize that, in some cases, we must issue AD's that require only inspections or operational procedures when these are the options available to address an unsafe condition (there is no terminating action). Additionally, in rare cases, we may issue AD's requiring a design improvement when the manufacturer hasn't yet developed or provided that design. These situations will continue to occur and we must continue to address them. However, I want to emphasize that the change in procedures covered by this guidance memo, relates to any situation where a terminating action is available; in such cases the AD should mandate the inspection or operational procedure only as an interim action until the necessary design improvement are installed.

Further, situations occur many times where the compliance time criteria for an inspection or special operational procedure would require issuance of an emergency AD (or an immediate adopted rule), but the compliance time for the terminating action is beyond that criteria. In these cases, I would expect that we would go forward with the emergency AD, with the terminating action included as optional; however, language must be included to indicate that the AD requirements are interim action and that the FAA will revise the AD to mandate the terminating action with a separate rulemaking action (Notice of Proposed Rulemaking).

Your offices should, of course, continue to coordinate with industry groups, operators, and manufacturers to come up with feasible schedules for accomplishing modifications or other appropriate terminating fixes. These schedules, however, should be the minimum time required consistent with parts availability.

Your support in this critical safety procedure is appreciated.

Signed by
Leroy A Keith